

Health of Housing Markets (HoHM) Report

From Nationwide Economics

2018 Q3

(Data as of 2018 Q2)

Outlook stuck in neutral as price gains accelerate

- The national LIHHM* remained at a neutral rating this quarter, indicating a mixed outlook for housing market health. Historically low inventories are holding back sales while pushing prices upward. Combined with rising mortgage rates, the resulting hit to housing affordability could begin to weigh on demand soon.
- Housing health in many regional markets is also being pressured by rising prices. While still half of MSAs are ranked positive, more markets have fallen into neutral or negative rankings, mainly due to unsustainably rapid price growth.
- Moreover, the imbalance between supply and demand is causing home prices in more local markets to heat up. Price gains have accelerated in two-thirds of the country's 400 metro areas over the past year — further challenging the search for affordable housing for homebuyers.
- Overheated markets now dominate the bottom 10 list, led by outsized price gains in San Jose as well as many MSAs in the Pacific Northwest. Several MSAs in Pennsylvania, New Jersey, and lowa — where price gains are positive but modest — are on the top 10 list.
 - * Leading Index of Healthy Housing Markets (LIHHM): A data-driven view of the near-term performance of housing markets for the nation as a whole as well as for 400 metropolitan statistical areas (MSAs) and divisions.



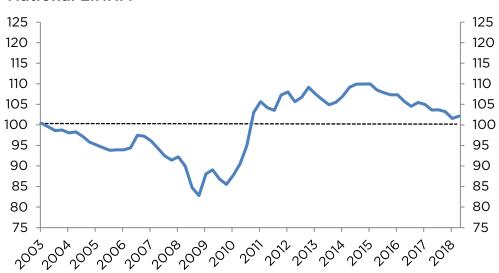


Housing sector outlook remains guardedly optimistic with the LIHHM in neutral territory

The national LIHHM edged upward to 102.2 this quarter, a value still in neutral territory. Lifting the LIHHM higher were mortgage delinquency rates recovering from last fall's hurricanes along with stronger household formations. Without the temporary negative from last year's hurricanes on serious delinquency rates, the national LIHHM would be rated as positive, although barely. Worsening affordability is a challenge for housing sector sustainability as a historically low supply of homes for sale is causing prices to climb at a rapid pace. Demand metrics remain solid with low unemployment and continued solid job gains as well as positive demographics from the millennial generation increasingly aging into their 30s.

Regionally, the LIHHM performance rankings show that about half of MSAs have a positive rating this quarter, signaling that a downturn in housing is highly unlikely over the next one to two years. An increasing number of metro areas are rated as neutral, however, primarily due to unsustainable price gains in local markets with rising affordability concerns for homebuyers.

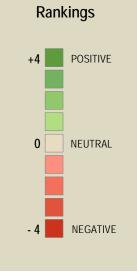
National LIHHM



125 POSITIVE 100 NEUTRAL 75 NEGATIVE

MSA LIHHM Performance Rankings



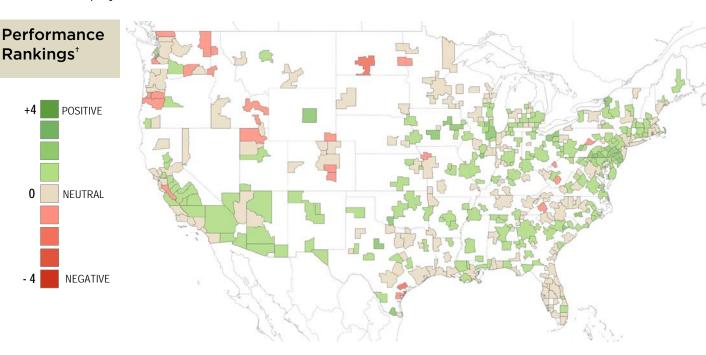


Performance



Regional LIHHM rankings show the most combined neutral and negative rankings since 2010

- The number of MSAs with a positive ranking still holds a slight majority at 201 local markets. This figure continues to decline as house price gains increasingly outpace income growth in more markets, worsening housing affordability across the country.
- There are now 173 MSAs with a neutral ranking, suggestive of a mixed outlook for housing activity.
- An additional 26 local housing markets have a negative ranking, mostly due to overheated house price
 gains that are negatively impacting housing affordability, although a few areas remain challenged by poor
 local employment factors.



Top 10 MSAs

Rank	Metropolitan Statistical Area
1	Cedar Rapids IA
2	Montgomery County-Bucks County-Chester County PA
3	Gettysburg PA
4	Camden NJ
5	Atlantic City-Hammonton NJ
6	Watertown-Fort Drum NY
7	Chambersburg-Waynesboro PA
8	Waterloo-Cedar Falls IA
9	Abilene TX
10	Casper WY

Bottom 10 MSAs

Rank	Metropolitan Statistical Area
400	Victoria TX
399	Bismarck ND
398	Kennewick-Richland WA
397	Lewiston ID-WA
396	San Jose-Sunnyvale-Santa Clara CA
395	Corpus Christi TX
394	Albany OR
393	Spokane-Spokane Valley WA
392	Anchorage AK
391	Fargo ND-MN

[†] Data as of 2018 Q2

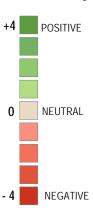




None of the top 40° largest MSAs have a negative LIHHM performance ranking, while an additional 25 are neutral. These lower scores are primarily the result of unsustainable house price gains. The remaining major U.S. housing markets show healthy trends with little chance of a downturn in the near term.

MSAs by size (Top 40), with corresponding performance rankings

Performance Rankings:



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		Performance Rankings			
	Metropolitan Statistical Area	Current [†]	Prior Qtr	Prior Year	
1	New York-Jersey City-White Plains NY-NJ	0	0	0	
2	Los Angeles-Long Beach-Glendale CA	0	0	0	
3	Chicago-Naperville-Arlington Heights IL	2	1	1	
4	Houston-The Woodlands-Sugar Land TX	0	0	1	
5	Atlanta-Sandy Springs-Roswell GA	1	1	1	
6	Washington-Arlington-Alexandria DC-VA	0	0	1	
7	Phoenix-Mesa-Scottsdale AZ	1	1	1	
8	Dallas-Plano-Irving TX	0	0	-1	
9	Minneapolis-St. Paul-Bloomington MN-WI	0	1	0	
10	Riverside-San Bernardino-Ontario CA	1	1	1	
11	Tampa-St. Petersburg-Clearwater FL	0	0	1	
12	San Diego-Carlsbad CA	0	0	0	
13	Seattle-Bellevue-Everett WA	0	0	0	
14	St Louis MO-IL	1	1	1	
15	Denver-Aurora-Lakewood CO	0	0	0	
16	Baltimore-Columbia-Towson MD	1	1	1	
17	Anaheim-Santa Ana-Irvine CA	0	0	0	
18	Warren-Troy-Farmington Hills MI	1	1	1	
19	Pittsburgh PA	1	1	2	
20	Oakland-Hayward-Berkeley CA	0	0	0	
21	Portland-Vancouver-Hillsboro OR-WA	0	0	0	
22	Nassau County-Suffolk County NY	0	0	0	
23	Charlotte-Concord-Gastonia NC-SC	0	0	0	
24	Miami-Miami Beach-Kendall FL	0	0	1	
25	Orlando-Kissimmee-Sanford FL	0	0	1	
26	Cambridge-Newton-Framingham MA	0	0	0	
27	Newark NJ-PA	1	1	2	
28	Fort Worth-Arlington TX	0	0	0	
29	Cleveland-Elyria OH	2	2	1	
30	Cincinnati OH-KY-IN	1	2	1	
31	San Antonio-New Braunfels TX	0	0	0	
32	Sacramento-Roseville-Arden-Arcade CA	0	0	0	
33	Philadelphia PA	1	2	2	
34	Kansas City MO-KS	0	1	1	
35	Columbus OH	1	1	1	
36	Las Vegas-Henderson-Paradise NV	1	0	1	
37	Indianapolis-Carmel-Anderson IN	1	1	1	
38	Boston MA	0	0	0	
39	Fort Lauderdale-Pompano Beach-FL	0	0	1	
40	Austin-Round Rock TX	0	0	0	

[†] Data as of 2018 Q2

^{*} Largest 40 determined by number of households



Are local markets heating up or cooling off?

Nationwide house values have accelerated over the past year — moving farther above the long-term average. Solid job and income growth (along with better demographics) are feeding homebuyer demand although the supply of homes on the market remains historically low. The resulting imbalance between buyers and sellers is pushing up prices at an unsustainable pace.

Prices are heating up in many local housing markets, as well. According to second quarter data from Black Knight, the four-quarter change in house prices has accelerated in two-thirds of the country's 400 metro areas over the past year — led by steep price growth acceleration in the San Francisco Bay area as well as Las Vegas.

Faster price increases combined with rising mortgage rates are unwelcome trends for those searching for affordable housing. Worsening affordability conditions have been the primary cause of falling LIHHM scores in recent quarters with more areas slipping into a neutral ranking.

Unsustainable house price growth will eventually slow as either more supply enters the market or demand factors reverse. This is the case for a number of the MSAs where price gains have cooled after multiple years of above-average growth.

Going forward, we expect that price increases in additional metro areas will slow to a more sustainable pace as supply and demand conditions rebalance. This would be a sign of longer-term health in those markets.

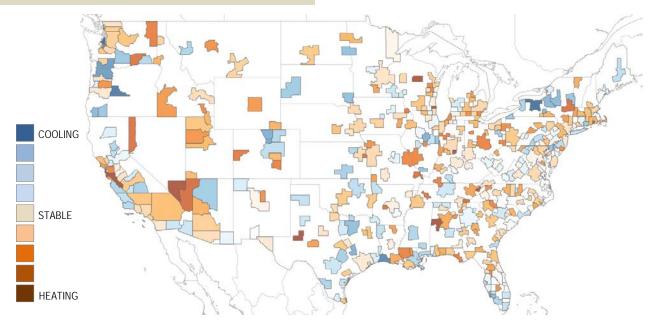
MSAs with accelerating price gains

Local Market	Change in HPI growth rate*
San Jose CA	13.6 pp
San Francisco CA	7.1
Odessa-Midland TX	6.7
Las Vegas NV	6.4
Columbus OH	3.1
Oakland CA	3.1
St. Louis MO	3.0

MSAs with decelerating price gains

Local Market	Change in HPI growth rate*
Portland OR	-3.5 pp
Boulder CO	-3.0
College Station TX	-2.7
Syracuse NY	-2.5
Fort Myers FL	-2.3
Dallas-Plano-Irving TX	-2.2

4-quarter change in trend HPI growth*



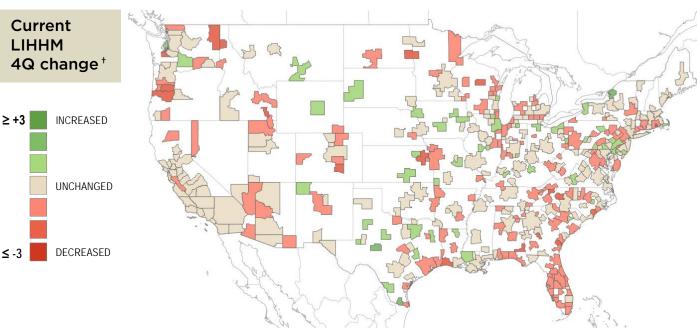
Source: Black Knight, Nationwide Economics

^{*} Change in 4-quarter growth rate from 2017 Q2 to 2018 Q2



Only an eighth of MSAs saw their rankings rise over the past year

- The near-term sustainability of housing markets is best measured by the current LIHHM (page 3), but looking at shifts in the LIHHM over the course of a year can provide additional insights.
- Approximately 40 percent of MSAs saw their rankings drop over the past year, although the majority of these pulled back by only one ranking. These declines usually had a common cause: reduced affordability as home price gains outpaced income growth.
- Nearly 50 percent of LIHHM rankings were unchanged over the past year suggesting little change in the outlooks for these housing markets. The remaining 10 percent saw their rankings climb, in part driven by improved employment especially in energy-intensive markets.



Largest Increase

Rank	Metropolitan Statistical Area
1	San Angelo TX
2	Watertown-Fort Drum NY
3	McAllen-Edinburg-Mission TX
4	Weirton-Steubenville WV-OH
5	Odessa TX
6	Longview TX
7	Sioux City IA-NE-SD
8	Lexington-Fayette KY
9	Farmington NM
10	Columbus IN

Largest Decrease

Rank	Metropolitan Statistical Area
400	Lake Charles LA
399	Wausau WI
398	Spokane-Spokane Valley WA
397	Hickory-Lenoir-Morganton NC
396	Hinesville GA
395	Pocatello ID
394	Albany OR
393	Dothan AL
392	Johnson City TN
391	Olympia-Tumwater WA

[†] Change in performance ranking; Data as of 2018 Q2



Appendix

Leading Index of Healthy Housing Markets (LIHHM)

Nationwide's LIHHM is a data-driven view of the near-term performance of housing markets based upon current health indicators for the national housing market and 400 metropolitan statistical areas (MSAs*) and divisions across the country. For each MSA, the LIHHM uses local-level data to incorporate the idiosyncratic characteristics of regional housing markets. The focus of the LIHHM is on the entire housing market's health, rather than a projection of house prices or home sales.

Nationwide Economics LIHHM methodology

The LIHHM is calculated using a number of variables that describe many of the drivers of the housing market for each MSA. In order to provide the best indicator of housing health, the included variables and corresponding weights for each provide the optimal leading perspective on future housing markets for each MSA. The drivers can be grouped into the following categories:

- 1. Employment
- 2. Demographics
- 3. Mortgage Market
- 4. House Prices

As an illustration, if job growth increases in an MSA, then the resulting rise in incomes creates additional housing demand. Consumers have a greater ability to earn and save for home purchases, increasing sales and pushing up house prices. The LIHHM measures the movements in the included employment, demographic, mortgage market, and house price variables versus the long-term trends within each MSA.

These drivers are used to derive an overall LIHHM score on a scale from 75 to 125 centered around a neutral value of 100. These values are placed into performance rankings to allow for better comparisons across MSAs. These performance rankings are the key metric in comparing the MSAs both to each other and across time. Raw LIHHM values are used for calculation purposes only and will only be shown on the national level as the national score is standalone and is not compared to other areas.

See more at blog.nationwide.com/housing

^{*} MSA: Geographical region with high population density and close economic ties throughout the nearby area, capturing 85-90% of the U.S. population



Authored by Nationwide Economics



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